

DESCRIPTION OF *TELENOMUS SOLITUS*, N. SP.
(HYMENOPTERA: SCELIONIDAE), A NOCTUID EGG
PARASITOID

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Abstract.—A new species, *Telenomus solitus* from Guatemala, is described on the basis of specimens reared in the laboratory from the eggs of *Trichoplusia ni* (Hübner) (Lepidoptera: Noctuidae).

I present a description of this species of *Telenomus* in order to provide a name to be used in conjunction with the biological studies of Rufina Navasero (University of California, Riverside [UCR]). The description is based upon specimens reared in the laboratory from the eggs of the cabbage looper, *Trichoplusia ni* (Hübner) (Lepidoptera: Noctuidae). This culture was founded by wasps collected by E. R. Oatman (UCR) in Salala, Guatemala, from unidentified noctuid eggs on potato foliage. The terminology used follows that of Johnson (*in press*).

Telenomus solitus Johnson, NEW SPECIES

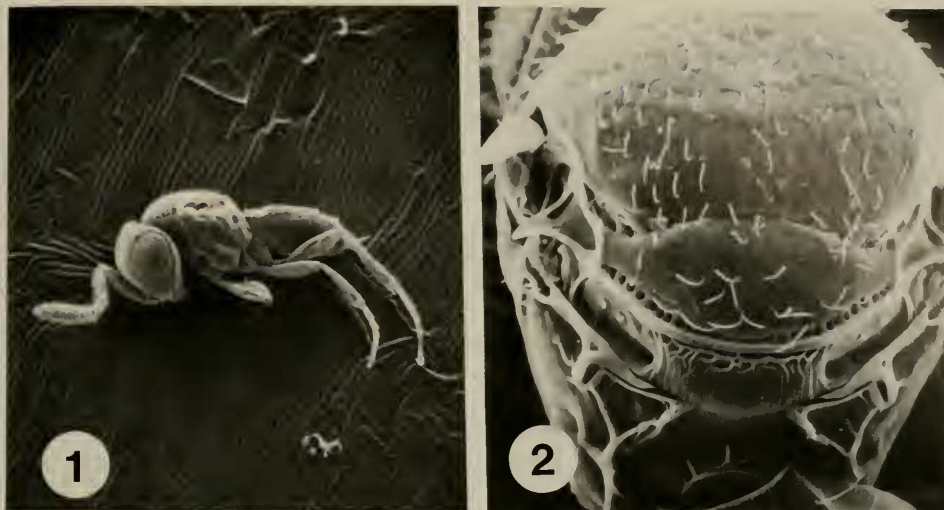
Figs. 1-5

Female.—*Color*: Tarsi yellowish brown; head, body, antenna, legs otherwise dark brown.

Measurements: DCI: 1.82–2.00 (\bar{x} = 1.89, SD = 0.05); FCI: 1.06–1.36 (\bar{x} = 1.22, SD = 0.07); frons width/eye height: 1.12–1.42 (\bar{x} = 1.26, SD = 0.08); W/L T1: 4.0–7.0 (\bar{x} = 5.3, SD = 0.9, n = 17); L/W T2: 0.72–1.07 (\bar{x} = 0.90, SD = 0.08, n = 17); L/W metasoma: 1.34–1.81 (\bar{x} = 1.63, SD = 0.13); TL: 1.24–1.50 mm (\bar{x} = 1.31 mm, SD = 0.06); sample: 20-1.

Head: Vertex smoothly rounded onto occiput, reticulate throughout, sculpture very shallowly impressed; no hyperoccipital carina; sculpture on vertex continuing on occiput to occipital carina; occipital carina complete, irregular medially, simple (i.e., not crenulate); frons smooth, with small punctures at bases of setae; orbital bands present only ventrally, area between lower 1/2 of eye and antennal insertions shallowly reticulate; ocellar setae absent; no precellar pit; frontal depression absent or very poorly developed, frons convex between eyes, not bulging between inner orbits and antennal insertions; eyes heavily setose; inner orbits rounded at level of lateral ocelli; temples not bulging, not grooved, reticulate sculpture along posterior orbits extending halfway to occipital carina.

Mesosoma: Mesoscutum convex, shallowly reticulate throughout, setal bases not pustulate; notauli absent; scutellum smooth, setose; dorsellum (Fig. 2) well developed, as long laterally as medially, punctate above, striate below, sculpture



Figs. 1–2. *Telenomus solitus*, female. 1, Lateral habitus, 49 \times . 2, Dorsellum, 263 \times .

sometimes effaced medially; acetabular carina simple; episternal foveae absent; width of intercoxal space slightly less than length of forecoxa, 2–3 \times length of setae arising from its surface; anterior margin of midcoxal cavity not expanded, simple; mesopleural furrow well developed; mesopleural carina absent; acetabular field small, reaching neither intercoxal space nor mesopleural furrow; posterodorsal corner of metapleuron not expanded; metapleural carina indicated by only short spur posteriorly.

Metasoma: T1 with 1 pair of sublateral setae, 2 pairs of lateral setae; greatest length of basal costae on T2 less than medial length of T1.

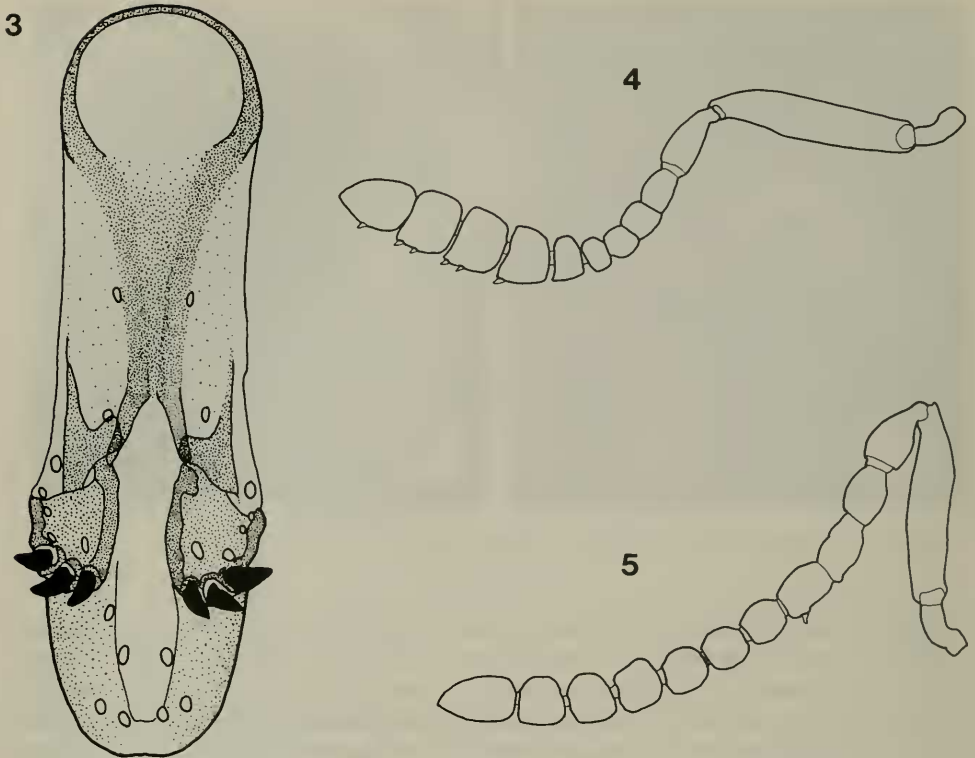
Antenna (Fig. 4) 11-segmented; clava (*sensu* Johnson, *in press*) 5-segmented; claval formula (Bin, 1981): All-A8/1-2-2-1; A6 strongly transverse; L,W A7 < A8; A8–A10 transverse. Wings clear, surpassing apex of metasoma; basal vein weakly pigmented; postmarginal vein longer than stigmal; hindwing narrow, greatest width 0.9–1.8 \times length of fringe at that point (\bar{x} = 1.4, SD = 0.2, n = 19).

Male.—*Measurements*: DCI: 1.75–2.28 (\bar{x} = 1.92, SD = 0.11); FCI: 1.15–1.39 (\bar{x} = 1.25, SD = 0.06); frons width/eye height: 1.12–1.44 (\bar{x} = 1.32, SD = 0.08); W/L T1: 3.2–6.2 (\bar{x} = 4.1, SD = 0.7, n = 18); L/W T2: 0.60–1.07 (\bar{x} = 0.82, SD = 0.13, n = 18); L/W metasoma: 1.17–1.61 (\bar{x} = 1.43, SD = 0.10); TL: 1.05–1.38 mm (\bar{x} = 1.26 mm, SD = 0.07); W hindwing/L fringe: 0.9–1.5 (\bar{x} = 1.2, SD = 0.1, n = 18); sample: 20-1.

Antenna (Fig. 5); genitalia (Fig. 3): laminae volsellares in form of 2 heavily melanized rods, closely approximated 3/4 of their length from base; digital teeth large, heavy, 3/digitus; penis valves weakly melanized; aedeagal lobe large, length 0.4 \times total length of aedeagovolsellar shaft.

Host.—Unidentified noctuid (wild); *Trichoplusia ni* (laboratory culture).

Material.—Holotype ♀: UCR lab culture, ex: *Trichoplusia ni*; orig. Guatemala, 11.iv.1977, E. R. Oatman, ex: unknown noctuid. Paratypes: 20 ♂, 19 ♀ with same data as holotype. Many more specimens from the same culture were also ex-



Figs. 3-5. *Telenomus solitus*. 3, Male genitalia, ventral view (basal segment removed), 713X. 4, Female antenna, 187X. 5, Male antenna, 187X.

amined. The holotype has been deposited in the collection of the National Museum of Natural History, Washington, D.C.

Remarks.—*Telenomus solitus* belongs to the *californicus* species group of the genus on the basis of the closely approximated, rodlike laminae volsellares and the large digital teeth of the male genitalia (see Johnson, *in press*). This species may be distinguished from the other species of that group by the combination of its small size, more quadrate head ($DCI = 1.9$ vs. $DCI > 2.0$), short A3 of the female ($L A2 > A3$), and, most easily, by the shape of the male genitalia, particularly the large, broad aedeagal lobe and the strongly melanized volsellar region.

The name *solitus*, from the Latin for customary, habitual or usual, refers to the lack of notable external characters in this species.

LITERATURE CITED

- Bin, F. 1981. Definition of female antennal clava based on its plate sensilla in Hymenoptera Scelionidae Telenominae. *Redia* 64: 245-261.
- Johnson, N. F. *In press*. Systematics of Nearctic *Telenomus*: classification and revisions of the *podisi* and *phymatae* species groups (Hymenoptera: Scelionidae). *Bull. Ohio Biol. Surv.* (n.s.).